

Title (en)
CALIBRATION OF DEVICES FOR OPTICAL ANALYSIS OF BLOOD SAMPLES

Title (de)
KALIBRIERUNG VON VORRICHTUNGEN ZUR OPTISCHEN ANALYSE VON BLUTPROBEN

Title (fr)
ÉTALONNAGE DE DISPOSITIFS POUR L'ANALYSE OPTIQUE D'ÉCHANTILLONS SANGUINS

Publication
EP 4030162 A1 20220720 (EN)

Application
EP 21151845 A 20210115

Priority
EP 21151845 A 20210115

Abstract (en)
Disclosed herein is a method of calibrating a device for optical analysis of a sample containing biological cells, a device for optical analysis of a sample containing biological cells, a calibration sample kit for calibrating a device for optical analysis of a sample containing biological cells and a computer program product. The method of calibrating a device for optical analysis of a sample containing biological cells comprises providing a calibration sample comprising one or more red blood cells having a nucleus. A first optical distance value and a second optical distance value are determined using the device. The first optical distance value characterizes an optical path length along a first optical path extending through the nucleus of a target cell selected from the one or more red blood cells. The second optical distance value characterizes an optical path length along a second optical path extending through the target cell, but not through the nucleus of the target cell. The first and second optical distance values are compared to one or more reference values. Based on the comparison of the determined optical distance values and the respective reference values it is determined whether the device is functional.

IPC 8 full level
G01N 15/10 (2006.01); **G01N 15/14** (2006.01); **G03H 1/00** (2006.01); **G03H 1/04** (2006.01)

CPC (source: EP)
G01N 15/1012 (2013.01); **G01N 15/1433** (2024.01); **G01N 15/1434** (2013.01); **G01N 15/147** (2013.01); **G01N 15/1484** (2013.01); **G01N 2015/012** (2024.01); **G01N 2015/016** (2024.01); **G01N 2015/018** (2024.01); **G01N 2015/1006** (2013.01); **G01N 2015/1454** (2013.01); **G01N 2015/1486** (2013.01); **G01N 2015/1497** (2013.01); **G03H 1/0443** (2013.01); **G03H 2001/005** (2013.01)

Citation (applicant)
• US 2019195774 A1 20190627 - EL-ZEHIRY NOHA YOUSSEF [US], et al
• M. UGELE ET AL., ADV. SCI., vol. 1800761, 2018

Citation (search report)
• [A] US 2008265130 A1 20081030 - COLOMB TRISTAN [CH], et al
• [AD] US 2019195774 A1 20190627 - EL-ZEHIRY NOHA YOUSSEF [US], et al
• [XAI] US 2017333903 A1 20171123 - MASAELI MAHDOKHT [US], et al
• [XII] US 2006203226 A1 20060914 - ROCHE JOHN W [US], et al
• [XAI] US 2013130266 A1 20130523 - STONE JAMES [US]
• [A] PATRIK LANGEHANENBERG ET AL: "Automated three-dimensional tracking of living cells by digital holographic microscopy", JOURNAL OF BIOMEDICAL OPTICS, vol. 14, no. 1, 1 January 2009 (2009-01-01), pages 014018, XP055043026, ISSN: 1083-3668, DOI: 10.1117/1.3080133

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 4030162 A1 20220720; EP 4278164 A1 20231122; EP 4278164 B1 20241016; WO 2022152543 A1 20220721

DOCDB simple family (application)
EP 21151845 A 20210115; EP 2021087485 W 20211223; EP 21840636 A 20211223